STATE OF MARYLAND

DHMH

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May 6, 2011

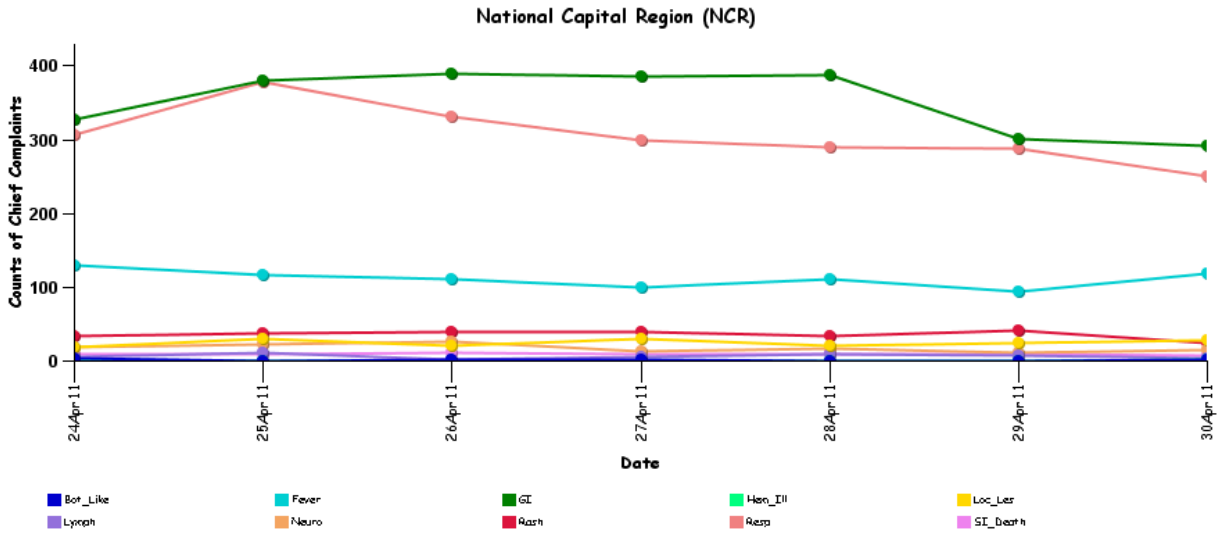
Public Health & Emergency Preparedness Bulletin: # 2011:17
Reporting for the week ending 04/30/11 (MMWR Week #17)

CURRENT HOMELAND SECURITY THREAT LEVELS

National: **No Active Alerts**
Maryland: **Level One (MEMA status)**

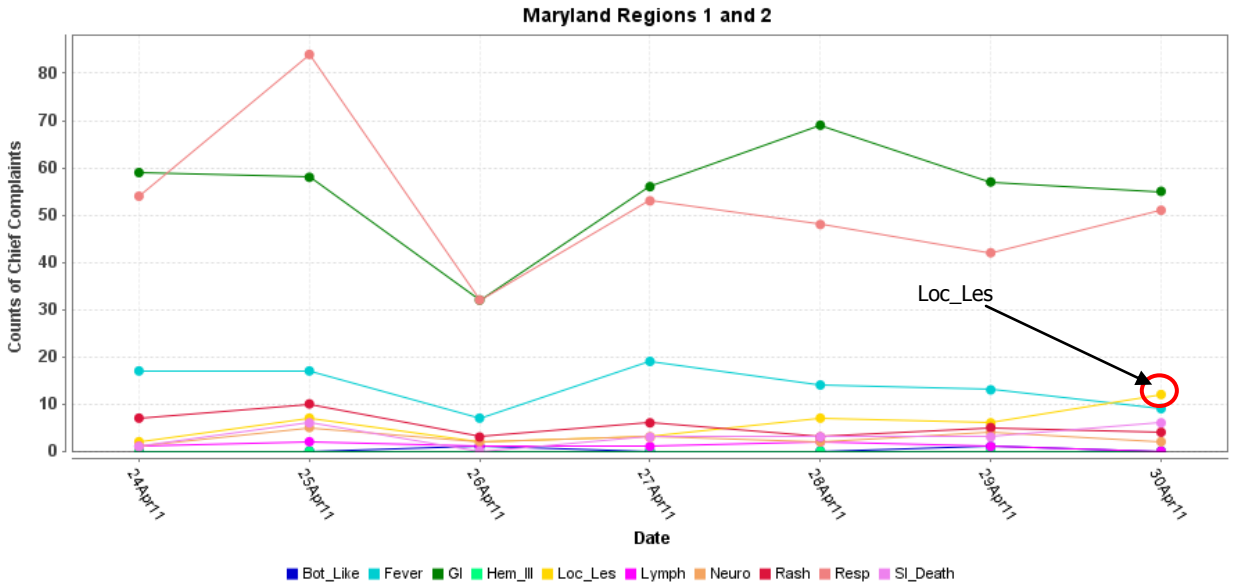
SYNDROMIC SURVEILLANCE REPORTS
ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics):
Graphical representation is provided for all syndromes, excluding the "Other" category, all age groups, and red alerts are circled. Red alerts are generated when observed count for a syndrome exceeds the 99% confidence interval. Note: ESSENCE – ANCR uses syndrome categories consistent with CDC definitions.

Overall, no suspicious patterns of illness were identified. Track backs to the health care facilities yielded no suspicious patterns of illness.

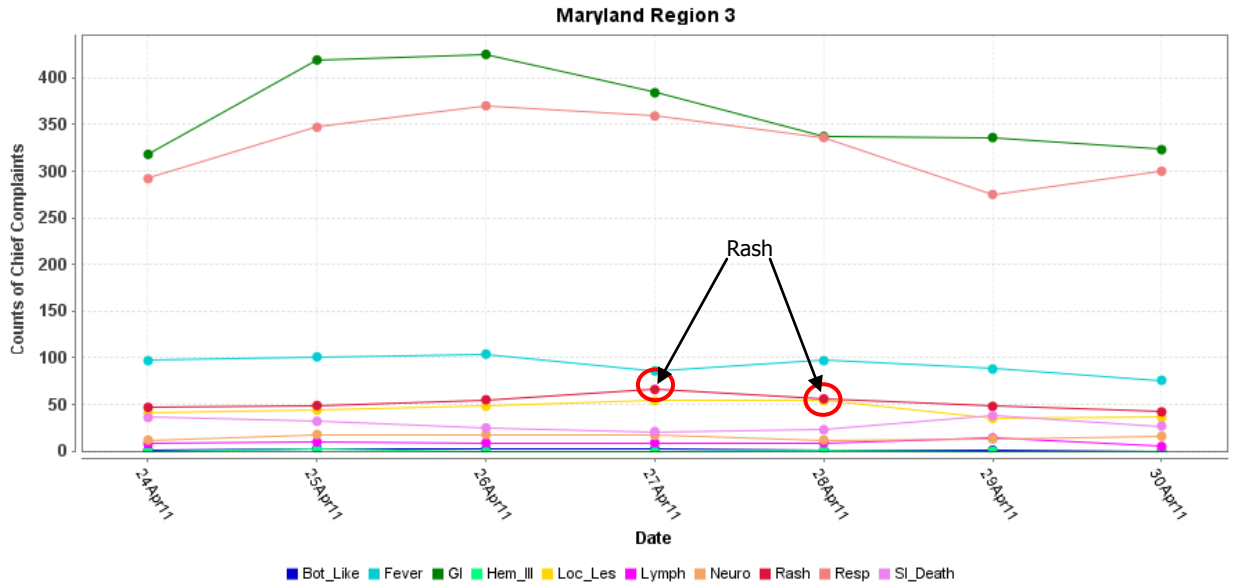


*Includes EDs in all jurisdictions in the NCR (MD, VA, and DC) reporting to ESSENCE

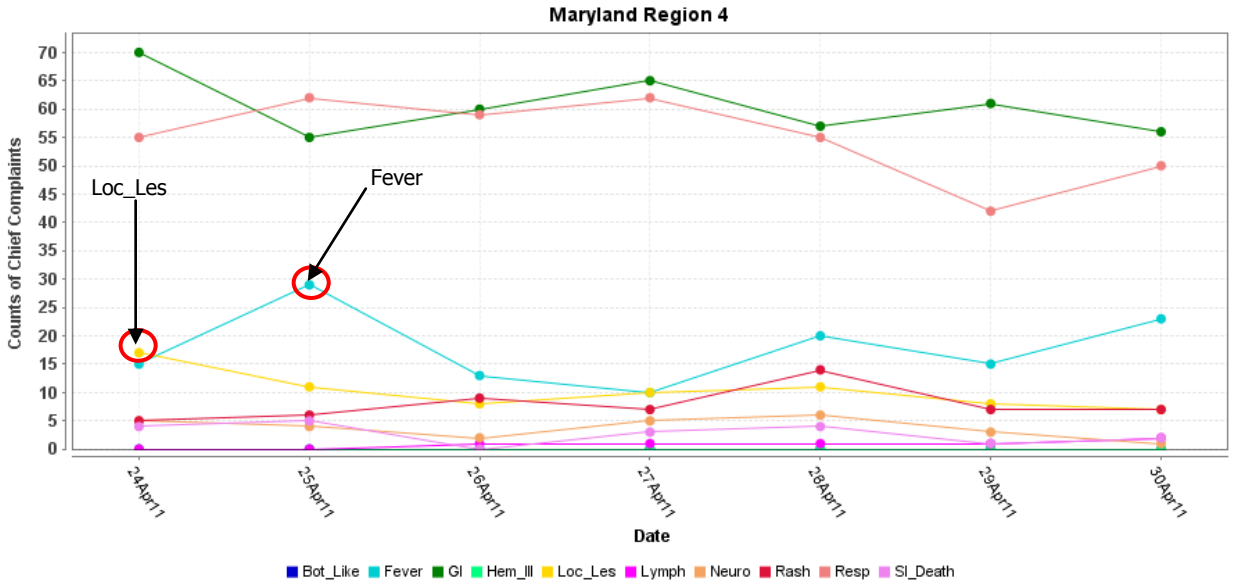
MARYLAND ESSENCE:



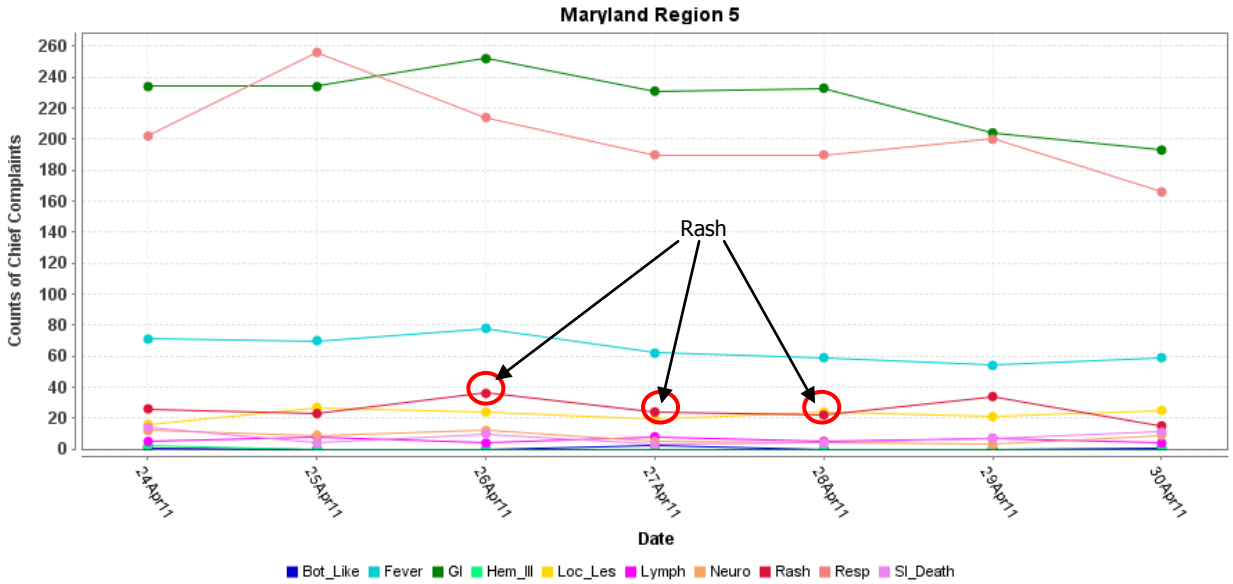
* Region 1 and 2 includes EDs in Allegany, Frederick, Garrett, and Washington counties reporting to ESSENCE



* Region 3 includes EDs in Anne Arundel, Baltimore City, Baltimore, Carroll, Harford, and Howard counties reporting to ESSENCE



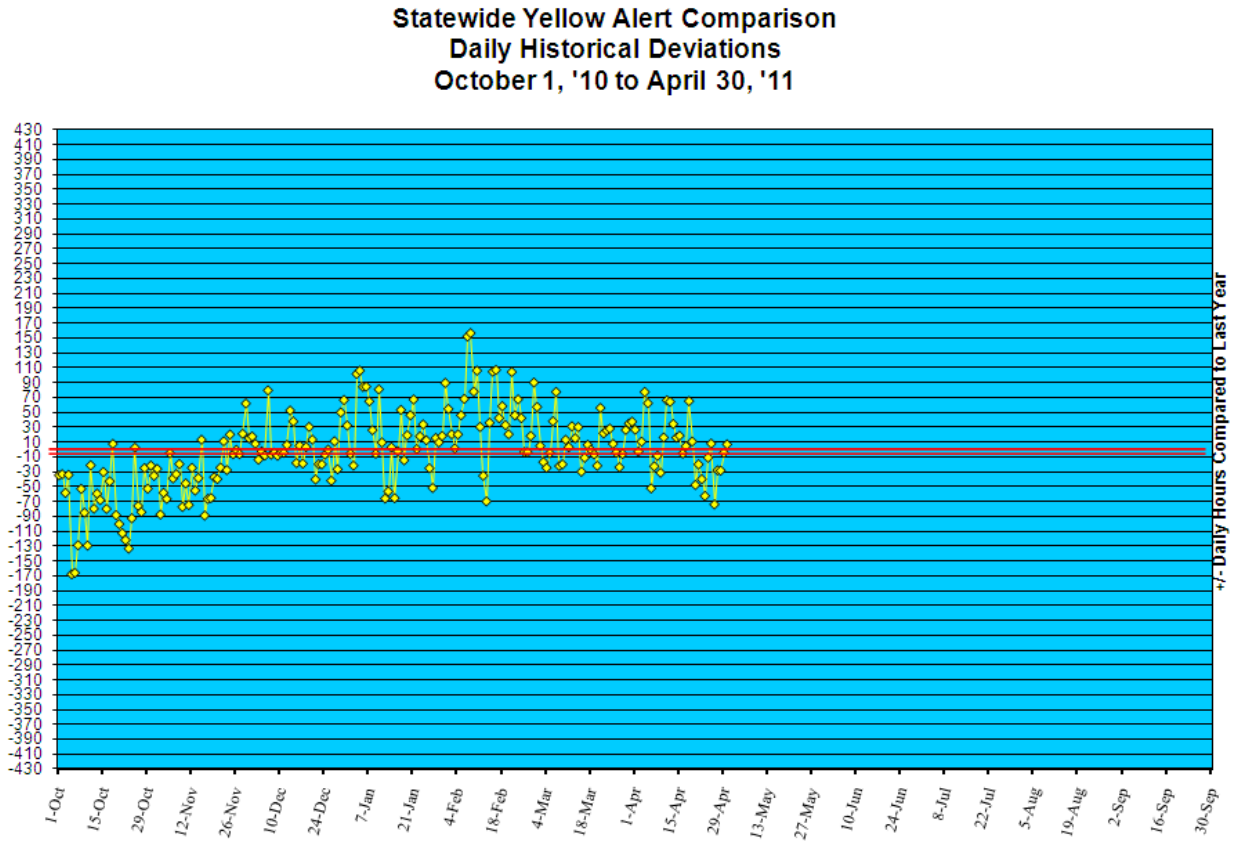
* Region 4 includes EDs in Cecil, Dorchester, Kent, Somerset, Talbot, Wicomico, and Worcester counties reporting to ESSENCE



* Region 5 includes EDs in Calvert, Charles, Montgomery, Prince George's, and St. Mary's counties reporting to ESSENCE

REVIEW OF EMERGENCY DEPARTMENT UTILIZATION

YELLOW ALERT TIMES (ED DIVERSION): The reporting period begins 10/01/10.



REVIEW OF MORTALITY REPORTS

Office of the Chief Medical Examiner: OCME reports no suspicious deaths related to an emerging public health threat for the week.

MARYLAND TOXIDROMIC SURVEILLANCE

Poison Control Surveillance Monthly Update: Investigations of the outliers and alerts observed by the Maryland Poison Center and National Capital Poison Center in March 2011 did not identify any cases of possible public health threats.

REVIEW OF MARYLAND DISEASE SURVEILLANCE FINDINGS

COMMUNICABLE DISEASE SURVEILLANCE CASE REPORTS (confirmed, probable and suspect):

Meningitis:	**Aseptic**	**Meningococcal**
New cases (April 24 – April 30, 2011):	3	0
Prior week (April 17 – April 23, 2011):	10	0
Week#17, 2010 (April 25 – May 1, 2010):	16	0

1 outbreak was reported to DHMH during MMWR week 17 (April 24 – April 30, 2011)

1 Gastroenteritis Outbreak
1 outbreak of GASTROENTERITIS in a Daycare Center

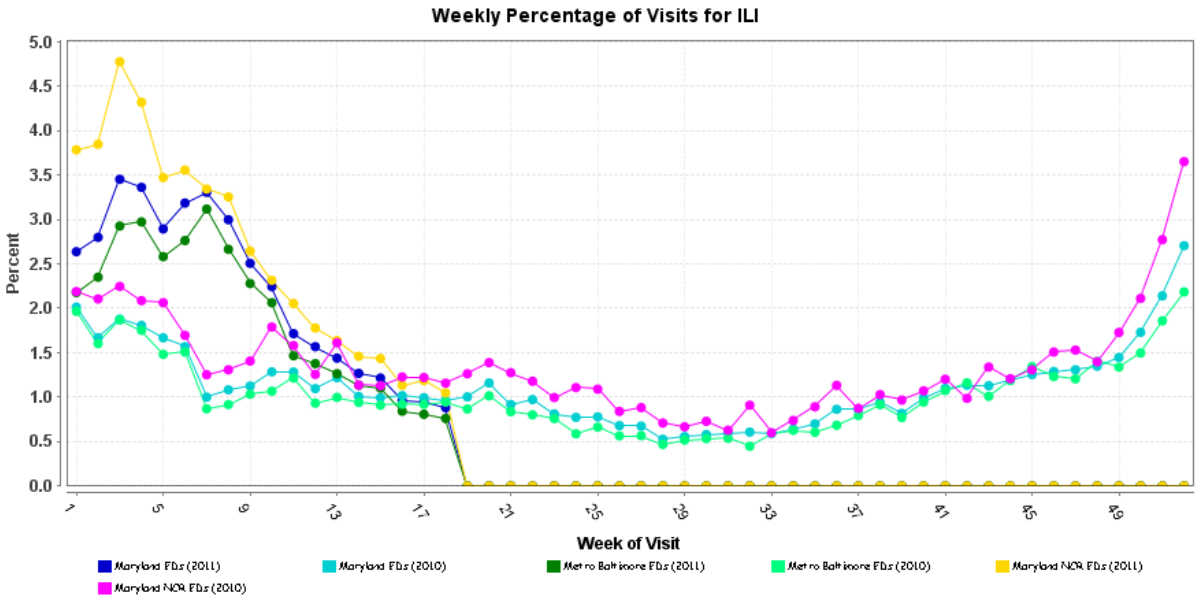
MARYLAND SEASONAL FLU STATUS

Seasonal Influenza reporting occurs October through May. Seasonal influenza activity was SPORADIC for Week 17.

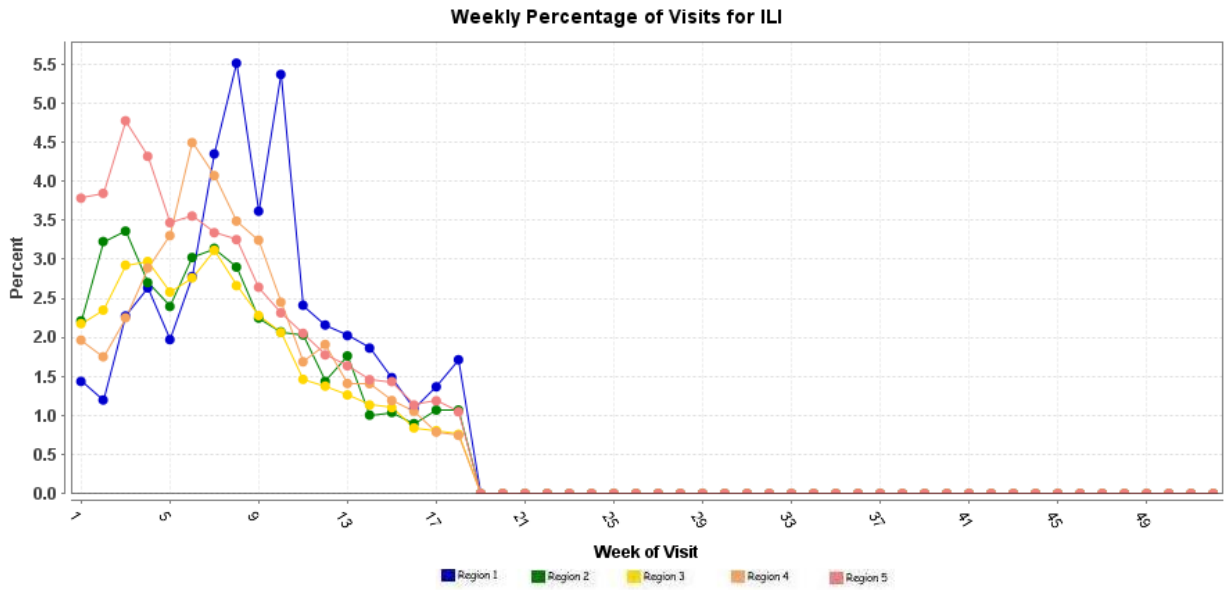
SYNDROMIC SURVEILLANCE FOR INFLUENZA-LIKE ILLNESS

Graphs show the percentage of total weekly Emergency Department patient chief complaints that have one or more ICD9 codes representing provider diagnoses of influenza-like illness. These graphs do not represent confirmed influenza.

Graphs show proportion of total weekly cases seen in a particular syndrome/subsyndrome over the total number of cases seen. Weeks run Sunday through Saturday and the last week shown may be artificially high or low depending on how much data is available for the week.



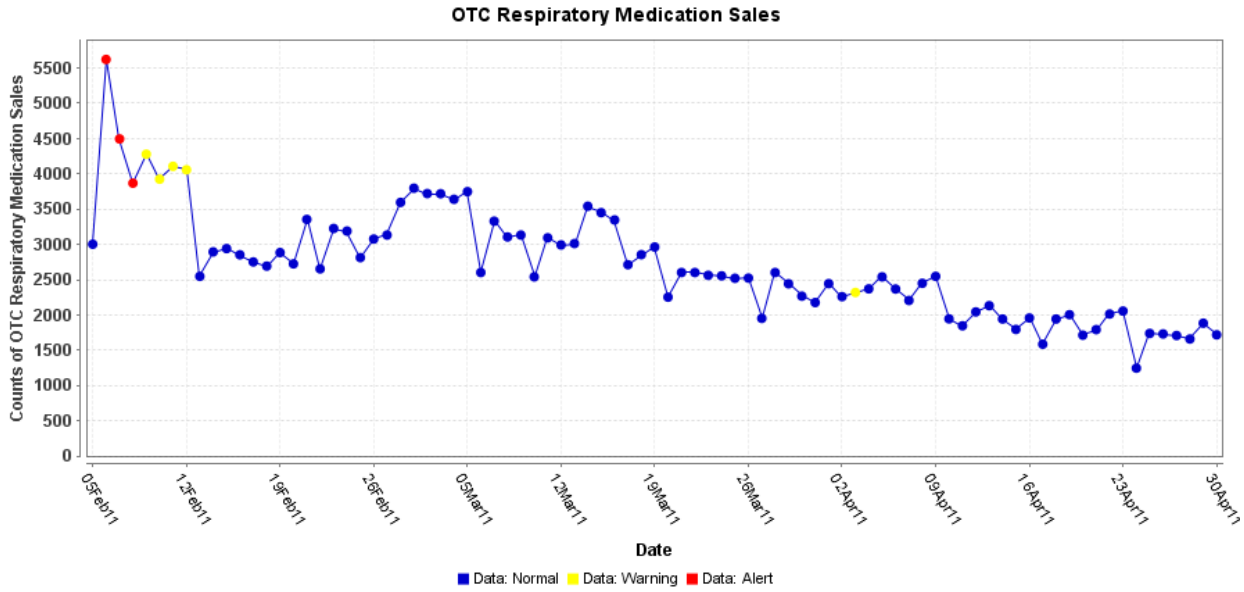
* Includes 2010 and 2011 Maryland ED visits for ILI in Metro Baltimore (Region 3), Maryland NCR (Region 5), and Maryland Total



*Includes 2011 Maryland ED visits for ILI in Region 1, 2, 3, 4, and 5

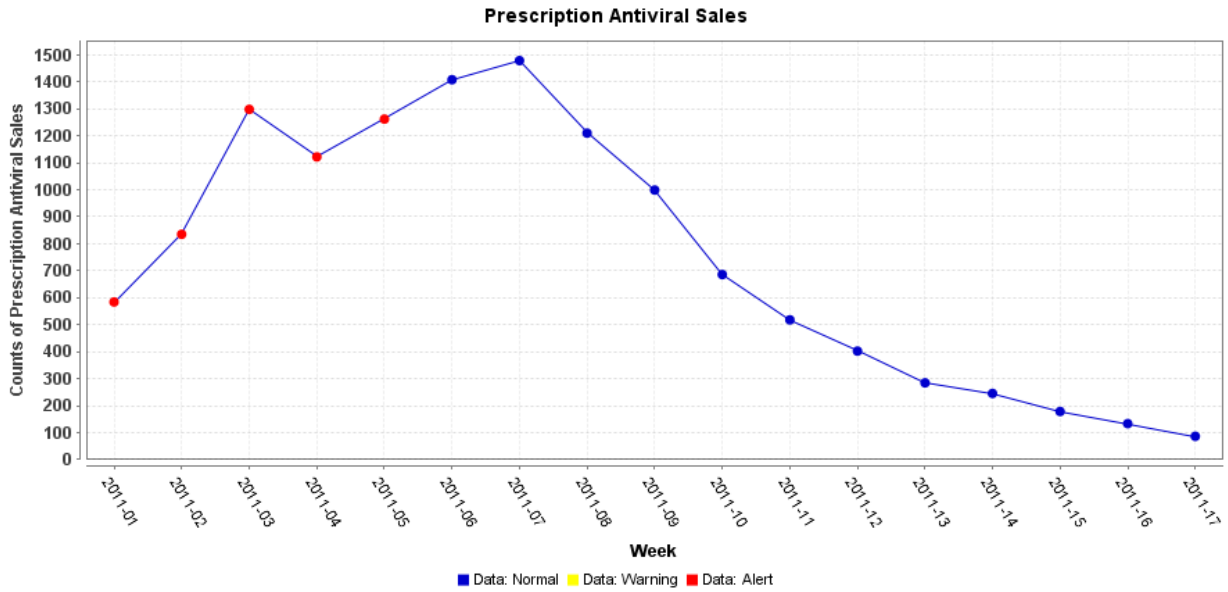
OVER-THE-COUNTER (OTC) SALES FOR RESPIRATORY MEDICATIONS:

Graph shows the daily number of over-the-counter respiratory medication sales in Maryland at a large pharmacy chain.



PRESCRIPTION ANTIVIRAL SALES:

Graph shows the weekly number of prescription antiviral sales in Maryland.



PANDEMIC INFLUENZA UPDATE / AVIAN INFLUENZA-RELATED REPORTS

WHO update: The current WHO phase of pandemic alert for avian influenza is 3. Currently, the avian influenza H5N1 virus continues to circulate in poultry in some countries, especially in Asia and northeast Africa. This virus continues to cause sporadic human infections with some instances of limited human-to-human transmission among very close contacts. There has been no sustained human-to-human or community-level transmission identified thus far.

In **Phase 3**, an animal or human-animal influenza reassortant virus has caused sporadic cases or small clusters of disease in people, but has not resulted in human-to-human transmission sufficient to sustain community-level outbreaks. Limited human-to-human transmission may occur under some circumstances, for example, when there is close contact between an infected person and an unprotected caregiver. However, limited transmission under such restricted circumstances does not indicate that the virus has gained the level of transmissibility among humans necessary to cause a pandemic.

As of April 21, 2011, the WHO-confirmed global total of human cases of H5N1 avian influenza virus infection stands at 552, of which 322 have been fatal. Thus, the case fatality rate for human H5N1 is approximately 58%.

NATIONAL DISEASE REPORTS

HANTAVIRUS (MONTANA): 30 April 2011, Park County health officials say a 46-year-old Livingston-area woman has died of hantavirus pulmonary syndrome. Coroner Al Jenkins tells the Livingston Enterprise that the woman died on 8 Apr [2011] while she was being transported to a Billings hospital. The woman had visited Park Clinic on 7 Apr [2011] with symptoms including a high fever, muscle fatigue and an extreme headache. She checked into the emergency room the next day also suffering from shortness of breath and extreme congestion. Hantavirus can be contracted through inhaling the droppings or urine of deer mice [Peromyscus maniculatus] or touching the droppings or urine and then touching one's eyes, nose or mouth. (Hantavirus is listed in Category C on the CDC List of Critical Biological Agents) *Non-suspect case

INTERNATIONAL DISEASE REPORTS

HANTAVIRUS (ARGENTINA): 30 April 2011, Following up on another fatal victim, a young man from Granadero Baigorria, Rosario municipal health [office] stated that the initial tests indicate that he was infected by [a] hantavirus and not by leptospirosis. On Tuesday [26 Apr 2011] the 28-year-old man from Granadero Baigorria who worked as a shepherd in a wetland farm, died after 2 agonizing days in a Rosario hospital, according to the Santa Fe Director of Epidemiology, Julio Befani. According to the Director's statement, the youth was taken 1st on Tuesday [26 Apr 2011] to the Alberdi de Rosario Hospital and from there was referred to the

Clemente Alvarez [facility] where death occurred. [Benfani] clarified [the situation] that the cause of death has not yet been established, and that laboratory samples were sent for testing and final classification at the Instituto Maiztegui in Santa Fe. "We only know that he [the patient] was admitted with a febrile syndrome compatible with [a] hantavirus or leptospirosis [infection], but as of now we do not have [laboratory] results so we are not sure if he died of one or the other disease." For another case, the Director of Epidemiology of the Rosario office, Lelio Mangiaterra, stated that the tests for a 24-year-old person from Siete Colinas, who died last week [week of 17 Apr 2011] revealed that the death was caused by [a] hantavirus [infection]. Mangiaterra explained that the spread of these diseases is multicausal. "It is due to environmental conditions and the confluence of rodents on the island [such as] the increase in the river [level], an ecological phenomenon such as decreases in predators, or absence of fires. It is important to note that the focus [of transmission] is not in an urban environment." (Hantavirus is listed in Category C on the CDC List of Critical Biological Agents) *Non-suspect case

HANTAVIRUS (CHILE): 30 April 2011, A 45-year-old individual from Frutillare would be the 4th case of [a] hantavirus [infection] registered in the Los Rios region. The individual is currently interned in the Puerto Montt Hospital Base according to details from Radio Bio Bio. According to reports, the individual is stable and up to now help by mechanical respiration has not been necessary. Health authorities in the area are carrying out rigorous procedures to establish the place where the infection occurred and establish if there are other infected people. (Hantavirus is listed in Category C on the CDC List of Critical Biological Agents) *Non-suspect case

HANTAVIRUS (CHILE): 30 April 2011, A new victim was hit by hantavirus [infection] in La Araucania. Saturday afternoon [23 Apr 2011] a young woman of just 19 years died in the [Valdivia] Regional Hospital suspected of having the disease. On Thursday [21 Apr 2011] she came to the [Temuco] regional medical center with a serious respiratory picture, coming from a rural area in Melipeuco. The patient was connected to a mechanical respirator and the rapid test [for a hantavirus infection] was positive; this would be the 4th fatal victim of the virus in La Araucania. According to the Health SEREMI [Regional Ministerial Secretariat of Health], Gloria Rodriguez, [later, the patient] was admitted to the intensive care unit of the Temuco Hospital. Although the rapid test was positive, the SERMI said that they awaited confirmation from the Institute of Public Health [ISP], the results of which would be available this week. "We have information that this concerns the young woman from a rural area in Melipeuco, which would be suspicious of [a] hantavirus [infection], but this week we sent sample to the ISP and began visits to the place where she had been infected and interviewed the family. According to the information provided by SEREMI, if the tests are positive, this would be the 3rd fatal case due to [a] hantavirus infection in the region just this year [2011]. However, this would be the 4th person affected by the virus, given that one survived. As for these infections, SERMI indicated that since we are in autumn, it is important that the families take necessary precautions, especially in rural areas that the long-tailed [pygmy] rat inhabits. "Despite the fact that the disease is more frequent in summer, it is important to also take into account the measures in this season and in winter, above all when there are colonies of these rats [in buildings]," she said. It is important to avoid entry of these rats, keep houses clean, garbage in sealed, covered containers and control rats outside of houses. Also, it is important to not camp near high risk areas. (Hantavirus is listed in Category C on the CDC List of Critical Biological Agents) *Non-suspect case

CHOLERA (MEXICO): 30 April 2011, The Ministry of Health issued a national epidemiological alert after detecting a case of cholera in the state of Sinaloa. In an interview, Undersecretary of Prevention and Promotion of Health, Mauricio Hernandez Avila, said the new case of cholera was detected in a 10-year-old. He said the case was treated quickly and the patient has recovered. The federal official called on state governments to maximize the monitoring of their water systems, because locally where you found a new case of cholera the chlorination systems not working properly. The goal, he added, is to detect a possible infection rapidly. He said they were working with the Federal Commission for Protection Health Risks (Cofepris) and the National Water Commission (Conagua) to strengthen the chlorination systems throughout the country. He rejected that could be risks of an epidemic as had occurred in Haiti, as he said, the Epidemiological surveillance systems are active and running. (Water Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

SALMONELLOSIS, SEROTYPE TYPHIMURIUM DT8 (IRELAND): 29 April 2011, In the last few weeks 2 cases of salmonellosis have occurred with duck eggs being blamed as the source of infection. A warning about a food poisoning outbreak related to duck eggs was issued by health bosses last week [week of 18 Apr 2011], according to The Herald of Ireland. The infection took 18 people to hospital in 2010 and now a further 2 cases have been reported in the last month, 1 in the east and 1 in the west of Ireland. The latest cases follow a nationwide outbreak of Salmonella [enterica serotype] Typhimurium DT8 associated with duck eggs in 2010 where 32 people contracted the infection. A hospitalization rate of 18 in 32 cases, 56 percent, is quite high for salmonellosis. The 2010 cases were spread right across the country and microbiological evidence pointed to duck eggs as the most likely culprit. Further investigations identified the bug in several egg-laying duck flocks and control measures were put in place. In addition, the Minister for Agriculture signed a new law to control this infection in ducks and duck eggs. The measures included a salmonella control plan, testing, sampling and registration arrangements. There were fears that infection might reappear when the laying season began again in the spring. Ducks naturally produce fewer eggs in winter because of falling temperatures and light levels. The Herald reports that consumers are advised to check guidelines for the safe handling, storage, and cooking of duck eggs. They need to be cooked with greater care than hens' eggs and should only be eaten when both white and yolk are solid, say health experts. Dishes containing them should also be cooked until they are piping hot all the way through and duck eggs should not be used for lightly cooked items like mayonnaise. (Food Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

ANTHRAX, HUMAN (RUSSIA): 24 April 2011, wo women, personnel members of a city clinic in Armavir, have been hospitalized with Siberian plaque in an infectious diseases clinic in Krasnodar, the territory's administrative centre, a spokesman for the local consumer rights supervision administration told Itar-Tass on Friday [22 Apr 2011]. Preventive measures are being taken at the Armavir clinic, where the women worked. (Anthrax is listed in Category A on the CDC List of Critical Biological Agents) *Non-suspect case

OTHER RESOURCES AND ARTICLES OF INTEREST

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website: http://preparedness.dhmh.maryland.gov/

Maryland's Resident Influenza Tracking System: http://dhmh.maryland.gov/flusurvey

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NOTE: This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information in a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

For questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail me. If you have information that is pertinent to this notification process, please send it to me to be included in the routine report.

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